

VIA ELECTRONIC DELIVERY

October 24 2015

U.S. Environmental Protection Agency  
Region 10  
Attn: Claire Hong  
Remedial Project Manager  
1200 Sixth Avenue  
Mail Code: ECL-122  
Seattle, WA 98101

Re: **Part 1**  
**Response to Request for Information**  
**Quendall Terminals Superfund Site, Renton, WA**

Dear Claire:

Enclosed please find the responses of Vertellus Specialties Inc. ("Vertellus") to questions 1 – 10, 28 of the Agency's Request for Information received by us on September 21, 2015.

Note that on October 13, 2015, we provided responses to questions 11 – 27 (Part 2) under separate cover and subject to protection as confidential business information. With the enclosed, Vertellus has responded in full to the most recent Request for Information.

Vertellus reserves its right to supplement its response as warranted. Nothing in this response is intended or should be construed as a waiver of any applicable legal privilege or doctrine.

With respect to the responses enclosed herein, I declare under penalty of perjury that I am authorized to respond on behalf of Respondent Vertellus Specialties Inc. and that the enclosed responses are complete, true and correct following diligent inquiry.

Very truly yours,



Thomas E. Mesevage

Enclosures  
cc:  
Ted Yackulic  
Assistant Region Counsel  
USEPA Region 10

**Part 1**  
**Response of Vertellus Specialties Inc. to**  
**Requests for Information Nos. 1 – 10, 28**

\* \* \* \* \*

1. Provide the full legal name and mailing address of the Respondent

**Response**

**Vertellus Specialties Inc.**  
**201 N. Illinois Street**  
**Suite 1800**  
**Indianapolis, IN 46204**

**Vertellus Specialties Inc. is an Indiana corporation engaged in the manufacture and sale of chemical products.**

2. For each person answering these questions on behalf of Respondent, provide:

- a. full name;
- b. title;
- c. business address; and
- d. business telephone and FAX machine number.

**Response**

**Thomas E. Mesevage**  
**Senior Counsel**  
**Vertellus**  
**900 Lanidex Plaza, Suite 250**  
**Parsippany, NJ 07054**  
**(973) 515-8611 (office phone)**  
**[tmesevage@vertellus.com](mailto:tmesevage@vertellus.com)**

3. If Respondent wishes to designate an individual for all future correspondence concerning this Site, please indicate here by providing that individual's name, address, telephone number, and fax number.

**Response**

**Service of legal documents should be via CSC Corporation Services. Correspondence may be sent to Thomas E. Mesevage (contact details above) with copy to:**

**John Jones**  
**Director of Regulatory Management**

Vertellus  
201 N. Illinois Street  
Suite 1800  
Indianapolis, IN 46204  
(317) 248-6427 (office phone)  
[jjones@vertellus.com](mailto:jjones@vertellus.com)

4. State the dates during which Respondent or its predecessor owned and/or operated any portion of the Site.

**Response**

Please see response 1.d of Respondent to the agency's July 11, 2008 Request for Information. By way of additional response, Respondent adds the following.

Portions of the Site were acquired by Peter C. Reilly in March 1916. Upon Mr. Reilly's death, his heirs acquired an interest in the land then owned by the decedent for a short period until conveying their collective interests to Respondent in December 1956. Thereafter, the property owned by Respondent was subject to a Real Estate Contract and Supplemental Agreement dated June 15, 1971 by and between Quendall Terminals, Reilly Tar and Chemical Corporation, and J.H. Baxter & Co. and Barbee Mills, Inc. Pursuant to such agreements, the subject property was conveyed by quit claim deed dated June 18, 1975 and recorded July 16, 1975.

Additional property interests appeared to have been obtained by Respondent (Republic Creosoting Company/Reilly Tar and Chemical Corporation) and/or Peter C. Reilly and are evidenced by documents produced to the agency in response to Request 1.d of the 2008 Request for Information. This includes leases and permits from Burlington Northern Inc. and Harbor Lease from the Port of Seattle. We refer you to the documents previously produced for relevant dates.

5. Identify any facility that manufactured gas of any type or that were (sic) otherwise engaged in the gasification or refining of fossil fuel and that sent, transported, arranged for the transportation of, or otherwise transferred any materials, products, byproducts or wastes to the Quendall Terminals Site (including Republic Creosoting Company and the Reilly Tar and Chemical Corporation). For each facility identified, provide the name and address of the facility, identify the owner and operator of the facility at the time of transfer and its relationship to Respondent, and state the dates during which Respondent or its predecessor owned and/or operated any portion of the facility.

- a. For each facility identified in response to request number 6 (sic), identify and provide all documents related to materials, products, byproducts or wastes that were sold, transported, sent or otherwise transferred to the Quendall Terminals Site (including Republic Creosoting Company and the Reilly Tar and Chemical Corporation). The response should include, but is not limited to, all tests, analyses, analytical sampling, and any other data concerning the constituents, including hazardous substances, of such materials, products, byproducts or wastes.



Please include information regarding who conducted the test and how the test was conducted (e.g., batch sampling, representative sampling, splits, composite, etc.)

- b. For each facilities (sic), provide all contracts and/or agreements entered into by Respondent or its predecessors with person or businesses that owned and/or operated the Quendall Terminals Site (including Republic Creosoting Company and the Reilly Tar and Chemical Corporation), or that shipped, transported, or otherwise transferred any materials, products, byproducts or wastes to the Site. Provide all pricing information including an explanation as to how the price was determined and when title transferred from Respondent or its predecessors to the third-parties. Also provide all information concerning the purpose and intent of the contracts and/or agreements, including how the materials, products, byproducts or wastes were intended to be used to (sic) the Quendall Terminals Site.
- c. For each facilities (sic), identify the dates and methods by which materials, products, byproducts or wastes were shipped, transported, or otherwise transferred to the Quendall Terminals Site (including Republic Creosoting Company and the Reilly Tar and Chemical Corporation). This question is intended to include, but not be limited to, identification of carriers, mode of transport, and specifications for loading and unloading. Provide all documents related to such transport or transfers.
- d. For each facilities (sic), quantify the total amount of each of the materials, products, byproducts or wastes sent, transported, or otherwise transferred to the Site.

#### **Response**

**Please note that Respondent's operations at the Renton site closed on or about 1971. Consistent with Respondent's document retention policy (previously submitted), such documents bearing on site operations and the commercial arrangements concerning the business involving the Renton site would likely have been destroyed.**

**Crude tar was used in Renton operations to produce creosote and other coal-tar derived products. It is believed that such crude tar was received from the Seattle Gas Company or its predecessors and successors from the Seattle Lake Station (Gas Works Park) and Tacoma facility (Washington Natural Gas Company) during the period starting with Renton plant operations until the 1950s. Subsequently, it is reported that Renton facility received water gas tar from Honolulu Gas Works and possibly "Pittsburgh." See Appendix 5.**

**When interviewed by the Washington Department of Ecology in 1989, Ward Roberts, formerly employed at the Renton site, reportedly stated that during his period of employment at Renton (reportedly 1950 to 1970), "the plant used approximately 500,000 gallons of oil-gas tar from Gas Works Park each month as well as receiving tar from other sources." See Appendix 5.**

- a. Any documents responsive to this request have been provided in response to the 2008 Request for Information, particularly Request 1.g. Respondent has identified no additional documents responsive to this request.



b. Respondent has identified no contract and/or agreements in its possession other than those provided to it by counsel for Quendall Terminals and which have previously been provided to EPA by Puget Sound Energy or counsel for Quendall Terminals (see, e.g., PSE QT020881-PSE-QT020884; PSE-QT0205625-PSE-QT025627; PSE-QT025628-PSE-QT025630).

c. It is believe that for at least a portion of the period of the operations of Republic Creosoting Company, delivery may have been FOB Republic's barges, tank cars or tank trucks at the Seattle Gas Company plant. See PSE-QT020882.

d. Respondent has insufficient information to comply with this request.

6. If not already provided, for each of the Listed Facilities, provide all documents pertaining to sale, transfer, delivery or disposal of any materials, products, byproducts, or wastes sold or transferred to the Site. This request is intended to include, but is not limited to:

- a. purchase orders;
- b. price lists, pricing sheets and quotes;
- c. carriers records and agreements;
- d. transportation designations, manifests and other records;
- e. marketing and/or advertising materials concerning materials sold, transferred, delivered and disposed of; and
- f. accounting records concerning product quantity, alternative buyers and uses for materials sold.

#### **Response**

This Request solicits documents concerning "the sale, transfer, delivery or disposal of any materials, products, byproducts, or wastes sold or transferred to the Site" for the relevant time period, 1916 to 1971.

All documents response to this request, if any, have been provided by Respondent in response to the agency's July 11, 2008 Request for Information. No additional documents have been identified.

7. If you have information concerning the course, content, or quantity of materials, products, byproducts, residuals, debris, or wastes transported to or otherwise used at the facility that is not included in the information you have already provided, provide all such information.

**Response**

**Respondent has no additional information. We note that the site and remediation investigation records in possession of the EPA provide inferential information regarding the “course, content, or quantity of materials, products, byproducts, residuals, debris, or wastes transported to or otherwise used at the facility.”**

8. Provide the names and last known address of any carriers or transporters of the materials, products, byproducts, residuals, debris or wastes identified in response to 7(b) (sic).

**Response**

**All responsive information to this request was provided in Respondent’s response to the agency’s July 11, 2008 Request for Information.**

9. If not already provided, identify and provide a last known address or phone number of all persons, including Respondent’s current and former employees or agents, who have knowledge or information about the generation, use, purchase, storage, disposal, placement, or other handling of hazardous substances, at, or transportation of hazardous substances to or from, the Site.

**Response**

**No current employee of Respondent worked at the Renton facility and has direct knowledge or information of the subject matter identified.**

**In is noted that Ward Roberts, formerly superintendent and manager for Reilly Tar and Chemical, was interviewed by the WA Department of Ecology in 1989 providing at that time information within the scope of subject matter. (See Appendix 5. See also Appendix 9). It is believed (although unconfirmed) that Mr. Roberts passed away in 2010. Mr.**

**By way of additional response, please also see the names and entities identified in the documents included in Appendix 9, who or which may have knowledge or information responsive to this request.**

10. If not already provided, identify and provide a last known address or phone number for all person (sic), including Respondent’s current and former employees or agents who have knowledge or information about the generation, use, purchase, storage, disposal, placement, or other handling of hazardous substances at, or transportation of hazardous substances to or from, the Site.

**Response**

**Duplicative request. Please see above.**

**28. Compliance with this Request**

Describe all sources reviewed or consulted in responding to this Request, including, but not limited to:

- a. the name and current job title of all individuals consulted;
- b. the location where all documents reviewed are currently kept.

**Response**

a. These responses were prepared by counsel. As such, the identity of individuals “consulted” (as opposed to those who may have provided factual information) is covered by the attorney work product doctrine. Subject to the foregoing, Vertellus employees consulted with respect to these responses (Part 1 & 2) include:

John Jones, Director of Regulatory Management, Vertellus Specialties Inc.;

Anne Frye, General Counsel and Vice President, Vertellus Specialties Inc.;

Philip Gillespie, CFO, Vertellus Specialties Inc.;

Keith Might, Senior Consultant, Environmental and Geological Consulting;

Holley Schwab, Paralegal, Vertellus Specialties Inc.;

Tony Weaver, Tax Manager, Vertellus Specialties Inc.

b. All tangible documents reviewed in responsive to this Request are located either at the Company’s headquarters at 201 N. Illinois Street, Indianapolis, IN 46204, the Vertellus location at 1500 S. Tibbs Avenue, Indianapolis, IN 46242-0912, or the Company office located at 900 Lanidex Plaza, Suite 250, Parsippany, NJ 07054.



## Appendix 5



Good Chemistry -  
Renton excerpts.pdf



Quendall Terminals  
- Ward Roberts' Inte

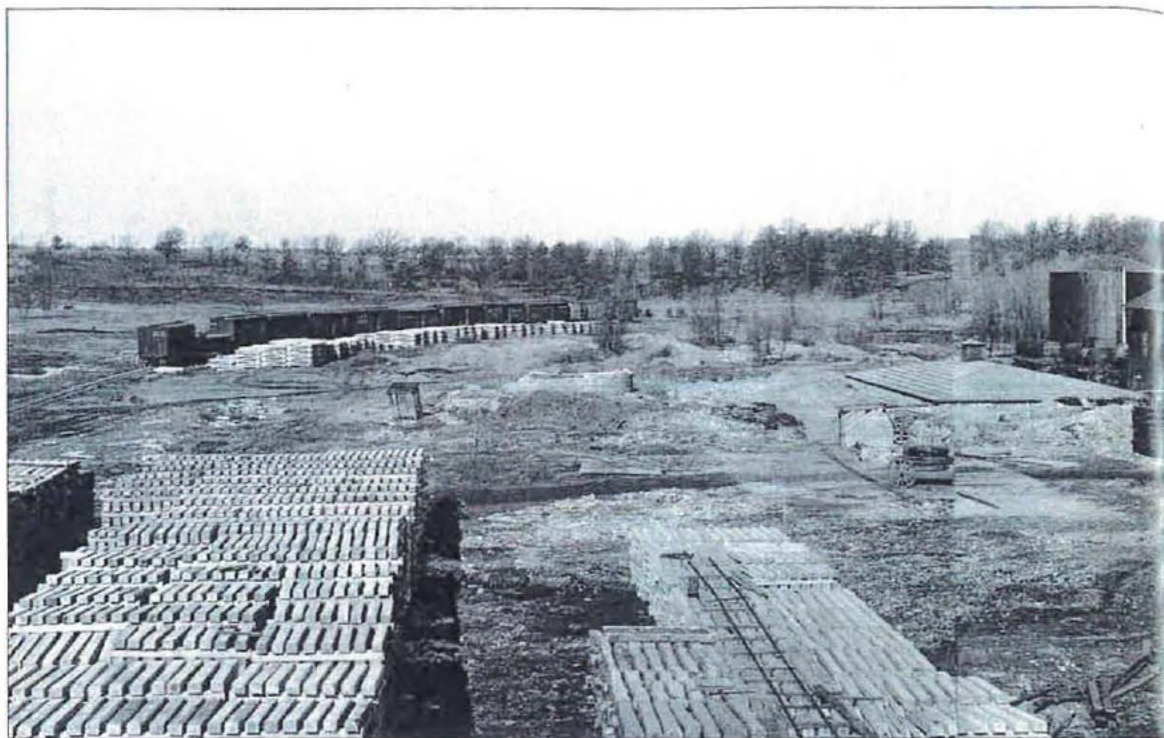
• *Good Chemistry* •  
THE STORY OF P.C. REILLY AND REILLY INDUSTRIES



BY BILL BECK

*Celebrating 100 Years*  
1896 - 1996





Park was the terminus of a number of northwestern railroads by 1916. Railroads like the Soo Line, the Chicago Northwestern, and the Omaha, St. Paul and Pacific had major maintenance and operation yards in the Minneapolis suburb. "St. Louis Park was mainly for the railroads," recalled Rolla McAdams, retired chief financial officer.

St. Louis Park and other Republic Creosoting plants depended heavily upon horsepower for transporting ties from the railroad to the plant. William Sandberg, who started as a timekeeper two years

after St. Louis Park opened, recalled how different operations were back then. "Employees came to work by horse. The time-

cards designated whether employees had one horse or a team of horses."

A number of Reilly employees transferred from the Minneapolis plant to the St. Louis Park operations. A.E. Larkin, the engineer at the Minneapolis plant, was named plant manager at St. Louis Park. Carpenters Herman Weckey, C.P. Armstrong, and Charles Lind also transferred, as did steamfitters Oscar Anderson, Jack Neubauer, and Steve Sisson.

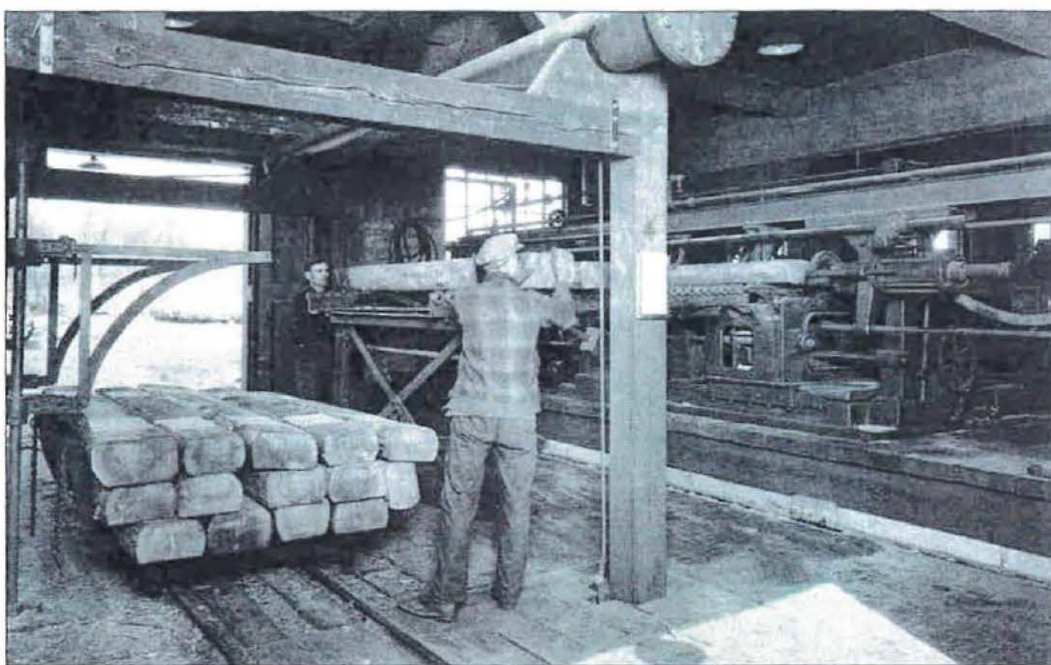
Sandberg recalled that brothers Carl and Frank Williams came to the new plant from Miley Avenue in Indianapolis. In 1918, Reilly closed his Minneapolis general office in the city's Plymouth Building and transferred staff to St. Louis Park, including M.B. Johnson, the office manager, and typists Gertrude Hamilton and Ethyl White.

Reilly would continue to expand Republic Creosoting's operations. In 1916, Reilly built a tar refinery plant at Renton, Washington. By that time, the nation was heading into a world war.

*P.C. Reilly opened his St. Louis Park plant in Minnesota in 1916, primarily to treat crossties for the railroads of the upper Midwest.*



Equipment at the Maywood plant in Indianapolis was designed to handle the treatment of railroad cross-ties – hot, dirty work that required substantial physical labor.



carbons in electrodes was in its infancy, but P.C.'s research team was already positioning the company for the huge market for electrode materials when aluminum production would burgeon in the 1940s.

Other processes coming out of the Republic laboratory created new products for the company. In the early 1920s, Republic Creosoting patented a process for a carburizing compound for case-hardening automobile parts, including gears, cam shafts, and piston pins. P.C. Reilly utilized a newly acquired company, the Char Products Company, to market the line. Char Products was a small Illinois firm that unsuccessfully pursued the production of carbon products by charring corn cobs. Corncob carbon and carburizing compounds never amounted to much, but the principal asset of Char Products was its young engineer and entrepreneur, Harold ("Jack") Horner, who served as Reilly's chief engineer in the 1960s.

Research was also conducted to improve existing Reilly inventions.

Laboratory technicians introduced steam distillation to the Reilly Still and obtained a further increase in oil production from tar. In the mid-1920s, Republic Creosoting started a cracking operation to convert low-grade tars to quality products. At Reilly's urging, the laboratory skipped the pilot-plant stage and installed a cracking unit at the St. Louis Park plant, followed shortly by another at the Renton, Washington, plant.

In 1929, Republic began producing its first pure chemicals – the tar acids, phenol, and cresylic acid. The company put in a tar acid recovery system at the request of the Bakelite Company, the developer of the first significant plastic. Bakelite was interested in recovering phenol from Republic Creosoting, which was necessary for the production of plastic.

Supplying valuable raw materials to companies such as Bakelite that in turn produced new synthetic materials became an early definition of the company's chemical mission. That mission guides the firm today and explains its relative anonymity in the consumer marketplace.



#### Republic and Reilly Tar in 1940

Following the 1932 acquisition of International Combustion Tar and Chemical, Republic Creosoting and Reilly Tar and Chemical operated wood treatment plants and tar refineries nationwide, from St. Louis Park, Minnesota, to Mobile, Alabama, and from Renton, Washington, to Newark, New Jersey. Reilly was headquartered in the Merchants Bank Building in Indianapolis, and its major facility was the Maywood plant in Indianapolis.

pipelines solved the problem of U-boat predation on American shipping, and all three were coated with enamel pipe coating made at Reilly's plant in Newark, New Jersey.

In 1950, Reilly constructed the Lone Star, Texas, plant adjacent to the Lone Star Steel mill in the heart of the gas-producing region of the country. To this day, despite many developments in corrosion prevention, Reilly coal tar enamel is a viable product for the protection of large pipelines.



electrochemical production process for aluminum required the continuous consumption of carbon in the carbon electrodes made from petroleum coke and coal tar pitch. Vast quantities of pitch were critical to aluminum production. One ton of aluminum requires one-tenth of a ton of pitch in the process.

Aluminum customers across the United States and in Canada bought Reilly



Road tar, shown being applied in the late 1960s, was still a part of Reilly's business 15 years after the death of its founder.

pitch from plants in Fairmont, West Virginia; Renton, Washington; Cleveland, Ohio; Chattanooga, Tennessee; Granite City, Illinois; and Provo, Utah. Over time, creosote oil, once the desired product in tar, diminished in relative value as pitch became more valuable.

Electric steel furnace companies also became Reilly customers as steel made from scrap metal began to make inroads in the market. Steel production was similar to aluminum production in that both require electrodes manufactured from petroleum, coke, and coal tar pitch.

Although Reilly still had a market for pitch, its supplies of coal tar became a problem. The days of the small-town gas coke ovens were numbered. Gas

companies across the country were gradually changing their facilities from manufactured gas to pipeline natural gas, diminishing coal tar supplies and raising the cost of raw materials for Reilly's refineries.

In the Pacific Northwest, Reilly's Renton plant was left without adequate supplies of crude tar when Seattle Gas converted to natural gas in the early 1950s. Rather than close the Renton plant, Reilly extended its life for more than a decade by signing a contract with Honolulu Gas Works to purchase water gas tar from the Hawaiian utility. Despite this effort the Renton plant was closed in the 1970s.

When interstate pipelines started to bring natural gas to consumers across the nation, replacing local gas producers, the company's method of sourcing coal tar changed. Reilly had large amounts of coal tar provided by local utilities, and that was a reason it had a large number of small refining plants. Those local sources of coal tar disappeared, and with them went sources of relatively inexpensive raw materials. Reilly became dependent upon steel companies that produce tar as a byproduct of their coking operations.

#### A NEW COMPETITOR

Another problem with coal tar supplies arose when several steel companies began refining the crude coal tar themselves, essentially becoming Reilly's competitors as well as its suppliers. U.S. Steel Corporation, a long-time supplier of crude coal tar to Reilly, began to process more tar itself following the war. The decision by the nation's



He retired in the 1970s.

John Shuler went to work at the Norfolk plant in 1946 and was plant manager until the plant was closed. As a young manager in Indianapolis, Herbert Finch was on a fast track to senior management. When his wife developed an illness, Finch decided to return to Minnesota to take over the St. Louis Park plant. Later, when St. Louis Park closed, Finch became an executive at Webster Wood in the Twin Cities and began a new relationship with Reilly as a valued customer. Both Shuler and Herbert Finch were recalled by colleagues as particularly good plant managers and two of the most competent, capable, and personable employees at Republic Creosoting.

Other noted Reilly managers include Pete Neri, who managed the Fairmont plant from the 1950s until it closed; Ward Roberts, who kept operations going at Renton; and Walter Varnell, who managed Reilly's Chattanooga facility.

Reilly had truly great salesmen, and they were a big reason for the company's success. Harvard-educated Jack Tildsley, sales manager in the Chicago office, was a confidant and personal friend of Pete, George, Thomas, and Ineva Reilly. They all held him in high regard and thought he was headed for top management of the company. Unfortunately, he died prematurely during the war years. Augustus "Gus" Newman was a noted New York salesman who sold piling, poles, and lumber. Albert Bohnstedt headed timber purchases in the South



for decades. George Posen was a successful sales manager and mentor to Robert Reilly, currently a member of the board of directors, and to Tom Reilly Jr. and Dan Trieff, who became officers.

Each of these managers, in his own way, contributed to the culture and success of the company over the years.



Ezra "Ed" Goodman (top) came to Reilly in 1932 and served as manager of the Granite City plant until the 1950s. Another valuable employee was Lawrence Hess. Seen here with his wife at his 50-year service dinner in 1959, Hess managed the Indianapolis plant and then became a leading salesman.





## TELEPHONE INTERVIEW NOTES

Person Interviewed: Ward Roberts  
Past Quendall Terminals Employee  
(b) (6)

Interviewers: Kenny Stein  
Ecology and Environment, Inc. (E & E)  
Project Manager  
(206) 624-9537

Susan King  
Ecology and Environment, Inc. (E & E)  
Technical Support  
(206) 624-9537

Date: October 19, 1990

Ward Roberts was the most knowledgeable of those interviewed regarding Quendall tank farm operations. During the 1970s, Mr. Roberts worked off and on at Quendall Terminals either as a Quendall Terminals employee or as an employee of a lessee. Although Don Norman was the official manager of Quendall Terminals during this time, Mr. Roberts was responsible for the day-to-day operations of the tank farm. He could not remember all of the lessees who had used the tanks; however, he did name a few lessees that we had already identified via file searches. To refresh his memory, we ran down the list of known lessees and asked him to tell us everything he could about them including when and for how long they used the tanks, which tanks they used, what they stored; and what their management practices were like. In general, Mr. Roberts could not be certain about which lessees used which tanks. He also could not tell us where the lease agreements would be if they were not in the Quendall Terminals files. However, he did provide the following information:

- o There were 10 tanks on-site when Quendall purchased the property from Reilly:
  - Two 2-million gallon tanks numbered 23 and 26 (installed in 1928);
  - Two - million gallon tanks numbered 37 and 38;
  - Two 272,000-gallon tanks numbered 35 and 36; and
  - Four small upright tanks numbered 31 through 34.
- o At the request of King County, Seattle Rendering stored tallow in one of the small upright tanks in 1973. That was the only time the small tanks were ever used by Quendall Terminals. These tanks had an inadequate foundation and tipped over more than once. Since the tanks were usually empty, there were no



Telephone Interview Notes  
Page 2.

"major" spills associated with these tanks. The tanks were removed in 1974. Mr. Roberts did not have any details on whether the small tanks were cleaned out or how any tank bottoms were disposed of.

- o Mr. Roberts confirmed that Boeing stored Bunker C or diesel in one or both of the 1-million gallon tanks prior to Quendall Terminals' acquisition of the property. Mr. Roberts was not involved with this storage activity but he recalled that some kind of law suit was filed against Boeing over the cost of cleaning the tanks.
- o A corporation called QED leased the tank farm from Quendall Terminals from 1973 to 1974, and became the operating entity. QED was a small company set up and financially backed by Mr. William Kemp (an ex-Weyerhaeuser Vice President) to take advantage of the used oil market. Mr. Kemp was the president of QED and Mr. Roberts became a principal employee. QED was a used oil broker that subleased the tanks to several other companies. Mr. Roberts referred to QED as one of several middle-man corporations that Quendall Terminals created. QED also leased an oil recycling facility from Time Oil in Tacoma. In this way, Quendall (or QED in this case) could offer customers both storage and recycling services.

Wally Drexler was the primary user of the tank farm during this period. Mr. Drexler owned or had some kind of relationship with several companies including United Drain Oil, Golden Penn Refineries, and Superior Refinery. There may have been a few others but Mr. Roberts said he could not remember the others. It was Mr. Roberts' understanding that these companies were really all one in the same and all associated with Mr. Drexler. According to Mr. Roberts, "the companies changed their names as often as you change your shirt." These companies collected used oil from gas stations and other businesses, stored the oil at Quendall Terminals, and recycled it at the Time Oil facility in Tacoma. The used oil was stored in the 1-million and 272,000-gallon tanks. The tanks were never all being used at the same time and they were never full. Drexler's operations were very sloppy. Used oil was often drained onto the ground.

QED folded in 1974, approximately 1 year after it was formed, and Quendall Terminals became the operating entity once again. Mr. Roberts became a Quendall Terminals employee again.

Telephone Interview Notes  
Page 3

- o In 1974, Quendall Terminals leased the two 2-million gallon tanks and one or both of the 1-million gallon tanks to Western States, a one-man tank farm broker operation. Western States, in turn, subleased the tanks to Willamette Industries. Willamette Industries stored more than 4 million gallons of Bunker C crude oil in the tanks for approximately 18 months. This was the only time that the 2-million gallon tanks were ever used after Quendall Terminals purchased the property. Other than this storage activity, there was very little use of the tank farm in 1974 and 1975.
- o Quendall Terminals leased the tank farm to Turbo Energy Systems (Turbo) in 1975. Turbo became the operating entity and Mr. Roberts became a Turbo employee. Turbo was a struggling engineering consulting firm with no tank farm operations experience - another "dummy" corporation to operate the tank farm. Mr. Roberts called Turbo "a figment of Don Norman's imagination." Mr. Roberts did not know why Quendall Terminals wanted these middle-man tank farm operators. He presumes there was a tax or other legal reason. Turbo's lease was terminated in late 1975 or early 1976, not even a year after the lease began. Mr. Roberts left when Turbo's lease was terminated and did not return until 1979. Mr. Roberts was not aware of any substantial use of the tank farm in 1976, 1977, or 1978.
- o From 1979 to 1981, the 1-million and 272,000 gallon tanks were used to store diesel. A corporation by the name of Pacific Gamble was the primary lessee. The tanks actually were used by two trucking firms, Northwest Services and Inland Transportation, of which Pacific Gamble was the parent company (Mr. Roberts was not sure whether Inland actually ever used the tanks). Mr. Roberts became a Northwest Services employee. Northwest Services was the operating entity. Northwest Services backed out in late 1979, and Quendall Terminals once again became the operating entity. Mr. Roberts once again became a Quendall Terminals employee.
- o Mr. Roberts stated that tank farm operations were generally very sloppy and spills were frequent during transfer and cleaning operations. He could not be specific about the quantities discharged to the soil. He also stated that the tanks probably leaked but he could not say how much stored material was lost to leakage.

HC003924



## MEMORANDUM

From: SPARK DETNTo: QUENDALL FILEDate: 3-16-83

(OFFICE)

10 12

Re: Meeting with Bob Johnson and Ward RobertsProject No. 516889.A0.

3960

I met with Bob Johnson and Ward Roberts (sp?) who was the former Reilly Tar Manager from about 1950-1970. The following are the primary points of the discussion:

- The facility on the Quendall property was primarily a refinery. Coal tar derivatives from the old Seattle Gas Works located on ~~the~~ Lake Union were barged to the site and stored in various tanks onsite over the period 1916-1970 that the facility operated. The facility consisted included a still house where the coal tar derivatives were refined into three main products: tar distillates or creosote, tar and pitch. The facility used to process about 500,000 gallons per month.
- A minimum of 2 large sumps and several smaller ones were used onsite to collect wastewater and separate out floatables and settleables prior to discharge to the lake. These two sump areas can be seen in earlier aerial photographs.
- A major spill occurred in the period 1930-1940 releasing approximately 32,000 gallons of material into Lake Washington.
- Of the two major sumps, the larger one was excavated and about 50 truck loads of material was hauled to the "cool creek dump". Nothing was removed from the southern sump.

HC003966





## MEMORANDUM

From: \_\_\_\_\_ (OFFICE)

To: \_\_\_\_\_ (OFFICE)

Date: \_\_\_\_\_

Re: \_\_\_\_\_

Project No. \_\_\_\_\_

- "hundreds of tons" of "Saturday Coke" was dumped in an area on the property near the shoreline. This material was chiseled out of the stills on Saturdays and dumped on site. Other miscellaneous garbage was also dumped in this site.
- Sodium Arsenate (Arsenic) was used as a weed control over the entire site for many years
- Creosote was hauled out by tank truck or by rail
- Material in sumps was from steam condensate containing distillates. Steam tubes in the stills would corrode often and distillates would contaminate the steam. This contaminated condensate would be channeled to the two sumps where the heavy material would separate and the volatiles would evaporate. It is not known if other waste material was dumped in these sumps.
- Thousands of yards of "foundry floor wastes" were used as fill material on site. This material came from PACCAR and could possibly contain some hazardous materials
- Oil sticks have been observed in the near shore area for many years.

HC003967



## MEMORANDUM

From: \_\_\_\_\_  
(OFFICE)

To: \_\_\_\_\_ 10 2

Date: \_\_\_\_\_

Re: \_\_\_\_\_

Project No. \_\_\_\_\_

- Cleanings from storage tanks were dumped on site near tank.
- Soil types underlying site are outwash materials from May Creek. Materials are highly layered with mixtures of sand, gravel, peat, clay overlapping and intertwined. This material is non-isotropic and heterogeneous. Consequently, waste material may have migrated laterally in areas where the permeabilities of the subsurface materials.
- Word commented that many of the materials (PNS's) are heavier than water and it would not be inconceivable to have them at depth at the site.

HC003968



Ecology Northwest Regional Office

MEMORANDUM

October 19, 1989

TO: Gail Colburn  
FROM: Debbie Muny and Lynn Coleman  
SUBJECT: Interview with Mr Ward Roberts, 7/26/89

Ward Roberts worked for Reilly Tar and Chemical from 1950 to 1970, when the refinery was demolished. He was first the superintendent for ten years, then the manager. He subsequently worked intermittently with Quendall Terminals. His academic background is in chemistry and chemical engineering.

In the interview, we first discussed the history of the site. The plant operated from 1917 through 1970, first called Republic Creosote and then Reilly Tar and Chemical Company. The company refined tars in stills producing creosote and distillates. Different tars, including oil-gas tar, water gas tar and coke oven tar were used as raw material in the refining process. Tar distillates were further refined through fractioning columns to generate crude naphthalenes, xylenes, benzene, toluene mix and other organic products. During Mr. Roberts' time with Reilly and Quendall, he estimated the plant used approximately 500,000 gallons of oil-gas tar from Gas Works Park each month as well as receiving tar from other sources.

Mr. Roberts discussed basic information on the groundwater and geology of the site. Workers at the plant lived east of the facility and relied on 5 or 6 wells for potable water. One by one, each of the wells became contaminated with creosote. He was not sure of the exact depth of these wells (although he stated they were shallow), but mentioned that the plant's drinking water well was artesian. Mr. Roberts sounded this well at 180 feet. This particular well is capped; the casings may still be in the ground, but he's not sure if the wellheads are still there. He also mentioned that the pilings for the J. H. Baxter boiler house were driven through 18 feet of peat to hard bottom at 25 feet. Reilly's boiler house was several hundred feet to the south of this.

When discussing patterns of groundwater contamination, he thought that some contamination would have an upgradient component due to changes in the level of the lake. The level of Lake Washington is altered seasonally, being two feet lower in the fall than in the summer.

Some waste products from operations at the plant were deposited on the land. Mr. Roberts discussed the two general types of contamination on the property: tars and pitches, which would tend to stay wherever they were put, and distillates which are generally lighter than water and migrate freely. The distillates contain benzene, toluene, ethyl benzene, xylene, methylnaphthalene, and creosol. He thought there should not be much of these lighter products on the site, as they are usually stripped out of the tar before it ever gets to a tar refinery.

Mr. Roberts described several potential sources of soil and ground water contamination:

1) the still house, located approximately 100 feet away from the wells. The condensers from the stills produced hot creosote vapors and steam which discharged into collecting pans and were pumped to storage. Leaks sometimes occurred in the condensers, and distillates would enter the cooling water. Cooling water discharged through a sewer into Lake Washington. *Still house*

2) the underground pipes in this facility may well have leaked at times, resulting in contaminated ground water.

3) Prior to his working at the facility, it was common practice to simply dispose of waste pitches and "Saturday coke" by running them out onto the ground.

4) Contamination also came from spills at the end of the docks, including a release in which an estimated 30,000-40,000 gallons was lost into the lake during off-loading of a tanker. Loss occurred off the end of the T-pier. Mr. Roberts had heard that this larger spill occurred in 1937, but he was not sure if this date was correct. *Releases*

Another source of contamination is the flush box - sanitary sewer outfall (See overlay, sewer outfall, labelled #1). The condensers from the stills sometimes leaked, allowing creosote to get into the sanitary sewer system. He was not sure of the exact path of the sewer line, but there should be a hot spot at the very end, where we should find lighter compounds, aliphatic chains and naphthalene, and other distillates. *Sewer*

When they cleaned the stills, the product was almost like a coke and included pitch. These are higher molecular weight PAHs, with 10 to 50 and maybe even 100 rings. He recommended that the indicator parameter for these pitches and tars should be anthracene, as it is the most abundant PAH with three or more rings that will be found on the site.

For distillates, alpha and beta methylnaphthalene would be good indicators because of chromatographic effects--the segregation of chemicals as they migrate through the soil. We mentioned that we used naphthalene as an indicator, because it seemed to migrate the farthest. Mr. Roberts said that while there is probably more naphthalene on the site, the alkyl-naphthalenes might still migrate more freely because of lower melting points.



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Mr. Roberts described the pitch bays (marked as #8 on the overlay), where the primary product was electrode binder pitch that was sold to aluminum smelters. The three bays were 40 feet wide by 150 feet long and 4 feet deep, with a concrete bottom and wooden sides. Liquid pitch was poured into the open-air bays. When the pitch hardened, it was transported off-site.

Contamination is also all along the old bed of May Creek (from cleaning of above-ground tanks), where we should find both tars and distillates. Mr. Roberts stated that to his knowledge the property south of May Creek was not used by the facility for waste disposal because no bridge was available.

The drawings of plans for the property that were found in an old CH2MHill report were identified by Mr. Roberts as products of Mr. Don Norman from the early 1970s. Mr. Roberts believed the drawings were of poor quality and therefore useless.

While Mr. Norman was supervisor at the facility, tank bottom sludges were dumped in area #6 on the map (see overlay).

Mr. Roberts mentioned old sumps, approximately three feet deep, which received effluent from cooling water in condensers (any leaks in the condensers would contaminate the cooling water). See areas #3 and #4 marked on the overlay for the locations.

Chlorinated hydrocarbons might also be found on the site, although in small volume, from the residues of an experimental wood-treating area where they tried using chlorinated liquid tar distillates (area #5 on the overlay).

There will also be heavy metals along the shoreline because foundry slag was used as fill. This was foundry slag from the Renton PACCAR facility and is labelled on the overlay as #7.

When asked how he would go about cleaning up the site, Mr. Roberts answered that he would leave the tars and pitches alone, because they will not migrate, and focus instead on getting the distillates out of the water.

Blueprints for the site have disappeared--Mr. Roberts said, "If Don Norman didn't steal them, then company headquarters may have thrown them out." Old plans of the site could possibly be obtained from the Renton Engineering Department, or the Reilly Tar and Chemical archives.

During operation of the facility, tankers coming in were sometimes low in the water. Being close to the bottom, they would stir the previously contaminated sediments (from the aforementioned T-pier spill) leaving heavy sheens on the water.

Other things we could not previously identify from the aerial photo: little horizontal tanks are just skeletons left in the scrap area. There were also small tool sheds at the northern end of the property, near the pitch bays.

Mr. Roberts could not remember any leaks or spillages from the tanks, although once a 25,000 gallon pitch tank blew up and everything in it solidified once it cooled. The pipes were then placed above-ground because of problems with buried pipes in the still house leaking.

When asked about the effects of contamination on fish, Mr. Roberts believed that chlorinated hydrocarbons and metals cause more problems than the other contaminants found at Quendall. He thinks we are "brewing a tempest in a teapot" if we try to remove ALL contaminants at the site. He believes that tar acids, phenols and creosols are more toxic to fish than most of the compounds at Quendall. These wastes typically do not come from gas plant tar and were not in much use at the Quendall facility.

When asked about the amount of product which could be assumed to be in the ground, Mr. Roberts guessed that a reasonable estimate would be 275,000 gallons. This is based on an average loss of 20 gallons/day over the life of the facility (1917 - 1970).

#### Guide to numbered areas on the map overlay

1. Sewer outfall: should find distillates from the leaky condensers in the still house here.
2. Area where pitch and coal tars were deposited.
3. Location of a pre-1950 sump, not on the photo.
4. Location of the sump we know about.
5. Where we should find some chlorinated distillates from the experimental wood treating area.
6. Location of tank bottom sludges deposited by Don Norman.
7. Location where foundry slag was used as fill--should find heavy metals here.
8. Location of pitch bays.

The aerial photograph can be scaled by the largest tanks which were 113 feet in diameter.



circa ?

# History of Reilly Tar Refinery at Quendall From 1914.

By: Walter W. Roberts - Oil Storage Manager - Quendall Terminals

Most of what I report from 1914 to about 1930 is from old records and photographs that I have seen, plus second and third hand oral tradition. From about 1930 to 1950 most of it is what I was told by Lou Tollefson. Most from 1950 to 1970 is from my own memory.

The rationale for construction of the plant in the first place was that every fair sized city on Puget Sound had a gas plant. These all produced tar as a by-product of manufactured gas. These tars could be moved to Quendall by water or rail for distillation. As late as the early fifties I was familiar with tars from Tacoma, Seattle, Bremerton, Bellingham, and Vancouver B.C.

From copies of correspondence that I have seen it is clear that D.C. Reilly was negotiating for "The Colman Property", in 1914. He purchased the site sometime between 1914 and 1916. It comprised all of the present Quendall Terminals, part of the southern portion of the present Baxter property, and roughly the northern portion of the exit 7 interchange on I-405. At the time of purchase most of the portion west of the railroad right-of-way was under water. I remember an old man standing at the window of the little brick office building and saying "I used to fish right here." I believe the purchase price was \$16,000.00.

From photographs I have seen of the original construction I judge that work was started as soon as the lake was lowered. In the initial phase there was no vegetation. A little further along there was tall grass. Later still, brush appeared. There was a wooden wier to control erosion by May Creek. It's remains were still visable in 1970. The old bed of May Creek marked the southern boundry of improvements.

The initial construction consisted of a combination still and boiler house, plus tanks #1 through #4, and the existing short dock. There was no road to the site. Access was by water, rail, or foot path. Employees walked or rowed to work.

Tanks were always numbered consecutively. The early years must have been successful, because by 1928 tank numbers were up to 26. It was in this year that the two large tanks, 23 and 26 were installed, as well as the long pipe trestle. This was obviously for handling tankers, where as the short dock and associated piping was suitable only for barges.

Early tanker operations were sometimes hectic. On one occasion a Japanese tanker was to discharge creosote at night. There was a severe language problem between the tanker crew and the plant personnel. They finally got hooked up and were given permission to start pumping. It being winter, and the weather miserable, the plant man came up to the boiler room to get warm. After a hour or so he went out to check the receiving tank, and discovered that there was nothing coming into it. Back out on the pipe trestle, he asked the tanker crew when they were going to start pumping. Again, with much language difficulty, they made it plain that they had been pumping for over an hour. The plant man in turn finally made it clear that nothing was coming into the plant. The tanker crew had opened the wrong valve and pumped over 30,000 gallons of creosote into Lake Washington.

On another occasion a creosote tanker crew from Europe made great difficulty for the plant manager when he wanted to gage the cargo prior to discharge. The gaging was finally done, and tens of thousands of gallons of creosote were found missing. Investigation revealed that the ships captain had made a phony purchase of bunker oil at the Panama Canal, split the money with the oil dealer, and steamed up the Pacific Coast on creosote.

Sometime in the twenties the company put up family housing, bachelor quarters and a barn for the plant's horses. There was plenty of pasture land. All this was in the area now taken up with the exit 7 interchange.

During the years of the depression and WWII plant operations were at a rather low level. Products were roofing pitch, water proofing pitch, fish net tar, coke, and creosote.

In 1950 the company signed a contract to take the entire tar production of the Seattle gas works, some four to six million gallons per year. From this tar was produced several grades of pitch, mostly for the aluminum industry, plus crude benzene-toluene, crude xylene (used as an aquatic weed killer in irrigation ditches), crude naphthalene, and various specialty oils. The period from 1950 to 1957 was the most profitable in the plant's entire history.

With the coming of natural gas to the Seattle area in 1957, the Seattle tar was no more. From 1957 to final closure in 1970 the plant ran on tars from points as distant as Honolulu and Pittsburgh. During this period freight on incoming tar precluded profitable operation. With no prospect for improvement in the situation the plant was closed for good in 1970.

1957 was a memorable year in several respects besides being the last profitable year.



On a Sunday evening when I was returning from the San Juan Islands I was horrified to see flames on what appeared to be the plant site. On driving into the plant I found all quiet, but there was no more sawmill and boat yard on our south side. Had the wind been from the south that day it is likely that the mill fire would have ignited a million gallons of hot tar in a tank over a hundred feet in diameter.

The same year tank #18 exploded and burned, killing two men and causing considerable property damage. Small explosions and fires were common place, but this was, I believe, the worst in the plant's history.

It was at about this same time that the Baxter Pole Yard went into the north of us.

The presence of hydrocarbons in the ground and under the lake bed at the site is undoubtedly going to cause problems for the present owners. A figure of 250,000 gallons of hydrocarbon in the ground has been bandied about. Although I can find no basis whatever for the figure, it is plausible. Twenty gallons spilled each working day for 55 years would do it. I personally know of more than one day when the spillage was in the thousands of gallons rather than tens.